

GEOS-Carb II: Delivering Carbon Flux and Concentration Products Based on the GEOS Modeling System

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GEOS-Carb Products

CO₂ Observations

In situ, TCCON, GOSAT, OCO-2

MERRA-2 Reanalysis Meteorology

Carbon Reanalysis for the GOSAT, OCO-2 Era

Improved Top-Down Flux Estimates

GEOS-5 Atmospheric CO₂ Simulations

CASA-GFED

Land Flux

fPAR, Fires

NOBM

Ocean Flux

Ocean Color

ODIAC

Fossil Fuel

Night Lights

Model Product Data

Comments

- Build on FPP and 2012 system development to produce flux and concentration products
 - Bottom-up land and ocean fluxes and fossil fuel emissions with associated uncertainties
 - Atmospheric CO and CO₂ reanalyses
 - Top-down flux estimates using multiple inverse models with a focus on quantifying impact of uncertainties
- Products delivered via GMAO website allowing users to download or access remotely using OPenDAP